

WHAT IS CLAIMED IS:

1. A method comprising:
receiving a portion of an input data stream having header data and payload data, the payload data occurring at a first offset relative to the header data;
generating a delayed version of the portion of the input data stream; and
generating a portion of a retimed data stream by selecting between the portion of the input data stream and the delayed version of the portion of the input data stream, the retimed data stream including the header data and the payload data, the payload data occurring at a second offset relative to the header data.
2. The method of claim 1 wherein the header data includes a high-order pointer indicating a byte location of path overhead, and the payload data includes the path overhead.
3. The method of claim 2 further comprising modifying the high-order pointer to indicate the second offset.
4. The method of claim 2 further comprising modifying the path overhead based on the second offset.
5. The method of claim 1 wherein the selecting is based on byte locations of the header data within the portion of the input data stream.

6. The method of claim 1 wherein the selecting comprises switching between the portion of the input data stream and the delayed version of the portion of the input data stream, the switching occurring at boundaries between the header data and the payload data in the portion of the input data stream.

7. The method of claim 1 wherein generating the delayed version comprises storing a number of bytes of the portion of the input data stream in a memory device.

8. The method of claim 7 wherein the number of bytes is based on a number of adjacent bytes of the header data within the portion of the input data stream.

9. The method of claim 8 wherein the number of bytes is further based on a number of bytes for fine-tuning the portion of the input data stream.

10. The method of claim 1 further comprising switching the payload data based on a position of the payload data within the portion of the retimed data stream.

11. The method of claim 10 wherein the switching comprises directing the payload data to one of a plurality of output communication lines.

12. An apparatus comprising:
a high-order switch;
a low-order switch subtended from the high-order switch;
and
a variable delay element between the high-order switch and the low-order switch, configured to

receive a portion of an input data stream having header data and payload data, the payload data occurring at a first offset relative to the header data;

generate a delayed version of the portion of the input data stream; and

generate a portion of a retimed data stream by selecting between the portion of the input data stream and the delayed version of the portion of the input data stream, the retimed data stream including the header data and the payload data, the payload data occurring at a second offset relative to the header data.

13. The apparatus of claim 12 wherein the variable delay element is located between an output of the high-order switch and an input of the low-order switch.

14. The apparatus of claim 12 wherein the variable delay element is located between an output of the low-order switch and an input of the high-order switch.

15. A computer program product tangibly embodied on a computer readable medium, for provisioning cross-connects in network switching environment comprising instructions for causing a computer to:

receive a portion of the an input data stream including having header data and the payload data, the payload data occurring at a first offset relative to the header data;

generate a delayed version of the portion of the input data stream; and

generate a portion of a retimed data stream by selecting between the portion of the input data stream and the delayed version of the portion of the input data stream, the retimed data stream including the header data and the payload data, the payload data occurring at a second offset relative to the header data.